Ma

YEAR 7

LEVELS 3–4

2004

Year 7 mathematics test

Paper 2

Calculator allowed

Please read this page, but do not open your booklet until your teacher tells you to start. Write your name and the name of your school in the spaces below.

First name _____

Last name _____

School _____

Remember

- The test is 45 minutes long.
- You **may** use a calculator for any question in this test.
- You will need: pen, pencil, rubber, ruler, tracing paper and a mirror (optional) and a calculator.
- This test starts with easier questions.
- Try to answer all the questions.
- Write all your answers and working on the test paper – do not use any rough paper. Marks may be awarded for working.
- Check your work carefully.
- Ask your teacher if you are not sure what to do.

For marker's use only

Total marks	

Instructions

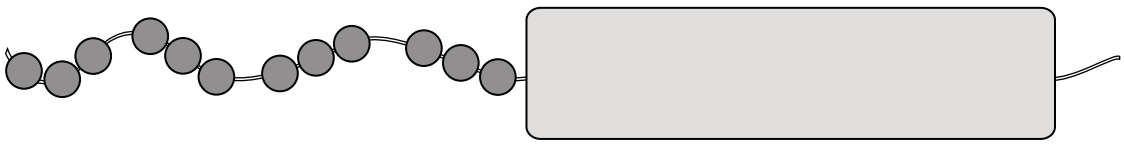
Answers

This means write down your answer or show your working and write down your answer.

Calculators

You **may** use a calculator to answer any question in this test.

1 Some beads are on a string.



Half of the beads are hidden.

How many beads are there **altogether**?

..... 1 mark

2 Fill in the missing numbers.

☐ + 789 = 1023 1 mark

718 − ☐ = 367 1 mark

☐ x 57 = 1938 1 mark

3 The table shows some information about some teachers in a school.

Name	Male or Female?	Tutor for which year group?	Maths teacher?	Science teacher?
Mr Brooks	male	year 7	yes	no
Miss Jones	female	year 9	no	yes
Mrs Patel	female	year 7	yes	yes
Dr Rawley	female	year 8	yes	no
Mr Williams	male	year 11	no	yes

Which female teacher teaches maths but not science?

. . . . . .

1 mark

4 (a) Carl has 4 coins.

Altogether he has **25p**

What coins could Carl have?

1 mark

(b) Mary has 5 coins.

Altogether she has **£1.25**

Mary does **not** have any **£1** coins.

What coins could Mary have?

1 mark

5 (a) About how much does a **new-born baby** weigh?

Tick (✓) the correct answer.

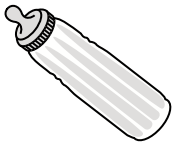
- ☐ 0.3 kg
- ☐ 3 kg
- ☐ 30 kg
- ☐ 300 kg

1 mark

(b) About how much milk does a **baby's bottle** hold?

Tick (✓) the correct answer.

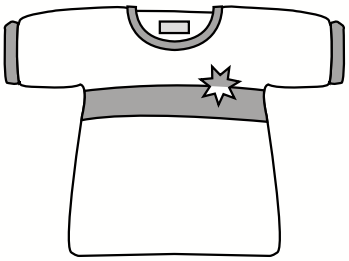
- ☐ 3 millilitres
- ☐ 300 millilitres
- ☐ 3 litres
- ☐ 300 litres



1 mark

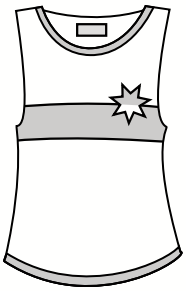
6 A shop sells T-shirts and vests.

T-shirts



£2.50 each

Vests



£1.99 each

I have **£20**

(a) How many T-shirts could I buy with £20?

. . . . . 1 mark

(b) How many vests could I buy with £20?

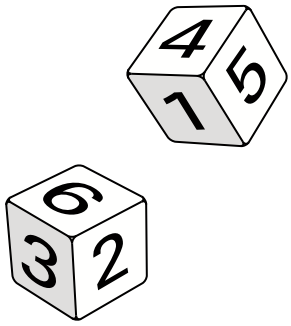
. . . . . 1 mark

(c) I buy **two T-shirts** and **two vests**.

How much change should I get from £20?

£ . . . . . 2 marks

7 I have two dice, each numbered 1 to 6



I am going to throw both dice and add the numbers.

Which of these **totals** are **impossible** to get?

Put a ring round the impossible ones.

12 5 20 8 1

1 mark

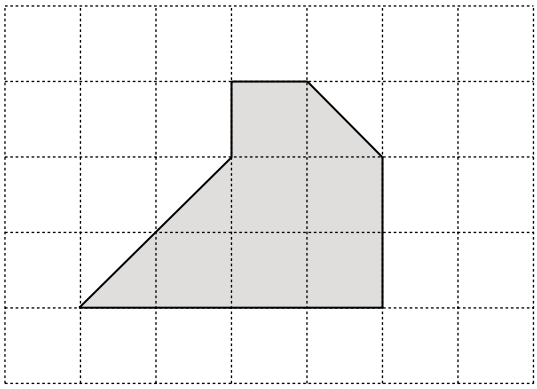
8 Fill in the missing word.

0.07 is the same as 7 *hundredths*

0.7 is the same as 7 .....

1 mark

9 Look at the shaded shape on this centimetre square grid.



(a) Explain why the shape is a **hexagon**.

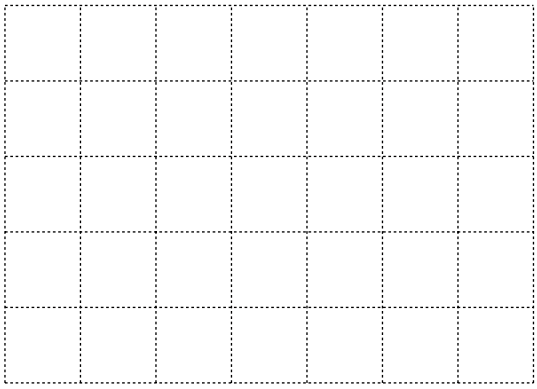
. . . . .
1 mark

(b) What is the **area** of the hexagon?

..... cm^2

. . . . .
1 mark

(c) On the centimetre square grid below, draw a **triangle** that has an area of **2 cm^2**



. . . . .
1 mark

10 Solve these equations.

$a + 12 = 24$

$a =$ ..... 1 mark

$b - 12 = 24$

$b =$ ..... 1 mark

11 (a) Gold ribbon costs **60p for one metre**. Tom has **£2.40**

How many metres of gold ribbon can he buy?

..... metres 1 mark

(b) Blue ribbon costs **40p for one metre**. Nicola buys $\mathbf{3\frac{1}{2}}$ **metres**.

How much does this cost?

£ 1 mark

12 The chart shows the distances in miles between five cities in America.

	Chicago			
Denver	1015	Denver		
New York	797	1799	New York	
Seattle	2062	1329	2864	Seattle
Washington	701	1686	228	2769

Use the chart to answer these questions.

(a) It is 1686 miles from Washington to Denver.

How many miles is it from **Washington to Chicago**?

..... miles

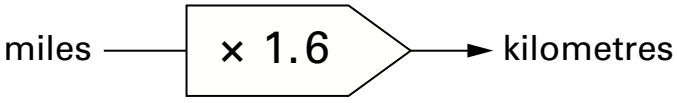
1 mark

(b) Which two cities have the **greatest distance** between them?

..... and .....

1 mark

(c) To change miles to kilometres use this rule:

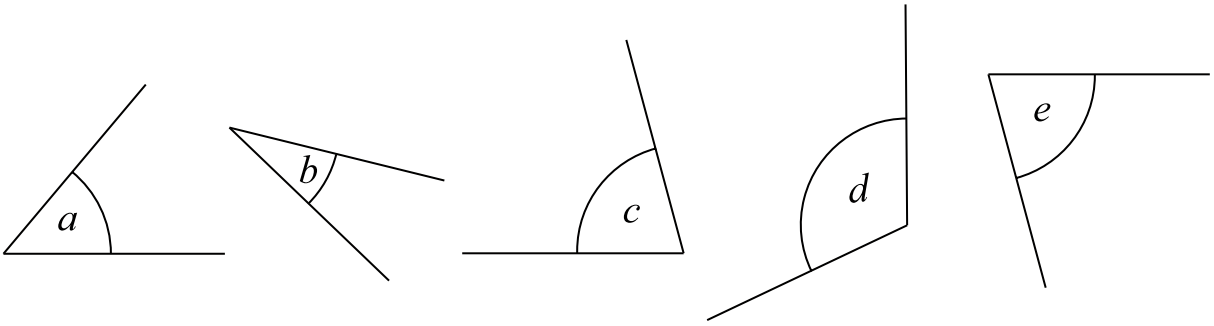


How many **kilometres** is it from **New York to Washington**?

..... kilometres

1 mark

13 (a) Look at these angles.

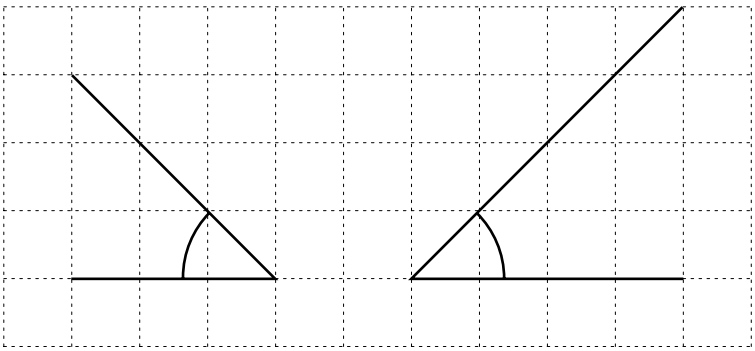


Write the letter of the **smallest** angle.

angle .....

1 mark

(b) Now look at these angles. They are drawn on a square grid.



Ali says the angles are **not** the same size.

Is he correct? Tick (✓) Yes or No.

☐ Yes ☐ No

Explain your answer.

1 mark

14 Three pupils answered different questions.

This is what each pupil's calculator showed:

(a) Asim's question was about **money**.

Complete the sentence:

3.5 means £3 and ..... pence.

1 mark

(b) Ben's question was about **time**.

Complete the sentence:

3.5 means 3 hours and ..... minutes.

1 mark

(c) Charlie's question was about **length**.

Complete the sentence:

3.5 means 3 metres and ..... centimetres.

1 mark

15 The card shows the price of dinner at a restaurant.

Dinner
£14.95 each

(a) **Twelve people** had dinner.

How much did they pay altogether?

£ . . . . .

1 mark

(b) Another restaurant has different prices.

Dinner
adults £12.90 each
children half price

Two adults and their children had dinner.

They paid **£58.05** altogether.

How many children had dinner?

. . . . .

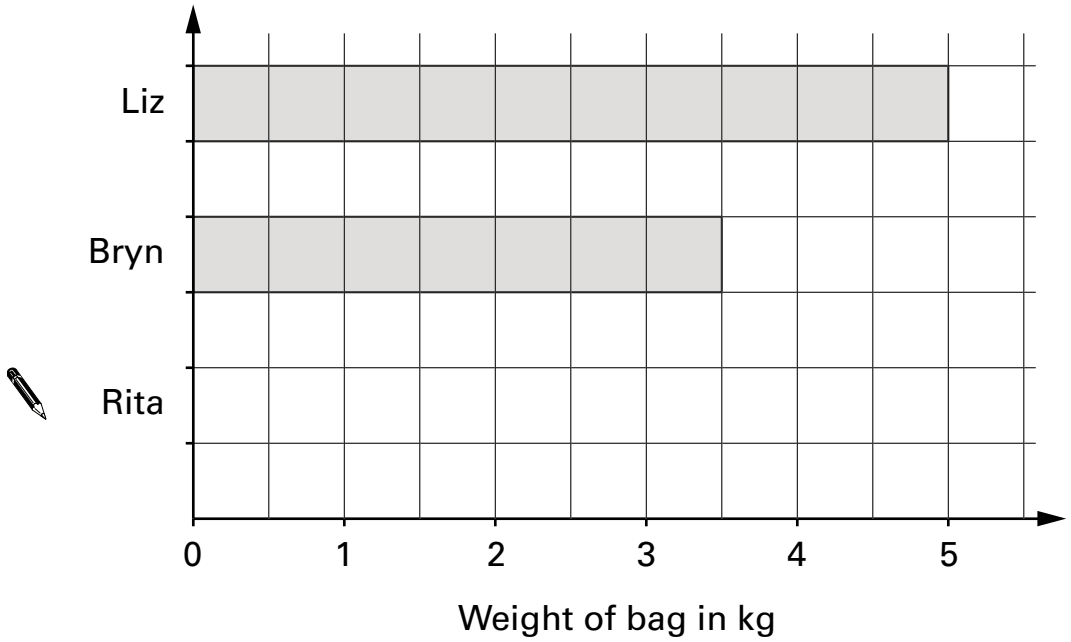
. . . . . children

. . . . .

2 marks

16 Three pupils weighed their school bags.

The bar chart shows the results for two of the pupils.



(a) Rita's bag weighed **2.5 kg**

Draw a bar on the chart to show the weight of Rita's bag.

1 mark

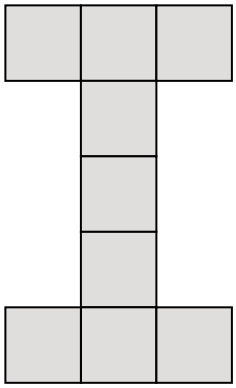
(b) How much did the 3 bags weigh **altogether**?

kg

1 mark

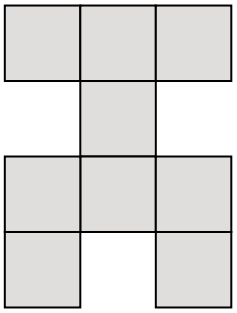
17 All the shapes in this question are made from nine squares.

This shape will look the **same** when it is **turned** through **two right angles**.

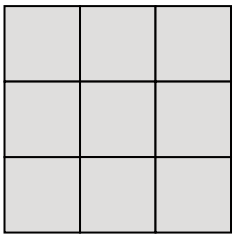


Which shapes below will look the same when they are turned through two right angles?

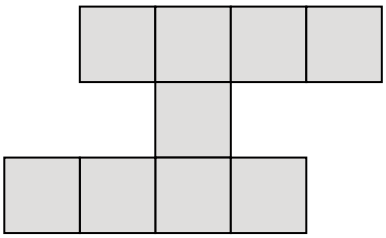
Tick (✓) the ones that do. Cross (✖) the ones that do not.



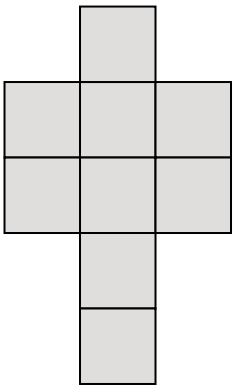
. . . . . .



. . . . . .



. . . . . .



. . . . . .

. . . . .

2 marks

18 Here is part of a questionnaire.

How old are you?

☐ *less than 18 years old* ☐ *more than 18 years old*

(a) Alice is 18 years old.

Explain why Alice cannot fill in this part of the questionnaire.

. . . . .
1 mark

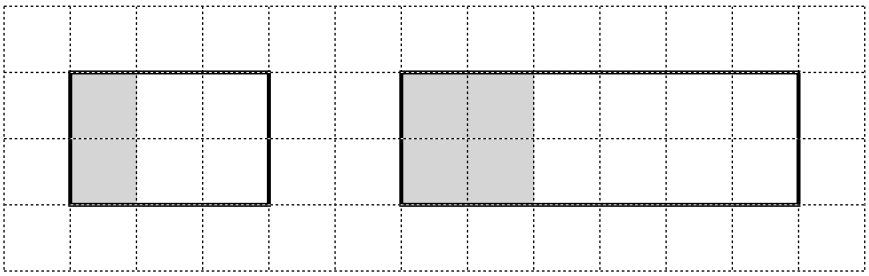
(b) Change the questionnaire so that everyone can fill it in.

How old are you?

☐ *less than 18 years old* ☐ .....

. . . . .
1 mark

19 Look at the rectangles on the square grid.



Jan says:

> The **same fraction** of each rectangle is shaded.

Is Jan correct? Tick (✓) Yes or No.

☐ Yes ☐ No

Explain your answer.

1 mark

END OF TEST

QCA, Years 7 and 8 Team, 83 Piccadilly, London W1J 8QA

QCA/04/1246 (pupil pack)
QCA/04/1241 (teacher pack)

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